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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,039	10/25/2000	Yasuo Himuro	Q59956	9058

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

8

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,039

Applicant(s)

HIMURO, YASUO

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28, 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-28, 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1-28, 30 and 31, the scope and meaning of "pseudo-land portion(s)" is unclear. One of ordinary skill in the art is not reasonably apprised of the scope of protection afforded by such language. It is not clear what characteristic(s) of the land portion make it a "pseudo" land portion.

As to the 112 second paragraph rejection regarding the scope and meaning of "pseudo-land portion", applicant argues that "claim 1, as amended, is believed to define these portions so as to enable one of ordinary skill to more clearly understand the scope of claim 1". Applicant's argument is not persuasive. It remains unclear what characteristic(s) of the land portion make it a "pseudo" land portion; applicant having not provided any convincing argument and/or evidence to the contrary. One of ordinary skill in the art is not reasonably apprised of the scope of protection afforded by the language of "pseudo-land portion". One of ordinary skill in the art cannot determine the meets and bounds of "pseudo-land portion" because one of ordinary skill in the art cannot determine which limitation(s) on "land portion" are imposed by "pseudo". It is unclear which limitation(s) are required and/or excluded by the description of "pseudo" before "land portion".

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In claim 31, the scope and meaning of "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (emphasis added) is unclear. In particular, it is unclear if the not opened language is emphasizing that the first groove wall is an axially inner groove wall or if the not opened language is requiring an additional limitation such as a circumferential rib.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan '024

5) **Claims 1-2, 4-5, 8, 10-11, 13-14, 17-19, 20-28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '024 (JP 9-2024).**

The claimed tire is anticipated by the tire of Japan '024. The claimed pseudo land portion reads on the projections on each side of the center rib 1 whose height decreases toward the slant groove 4. The claimed circumferential groove reads on the circumferential void defined between the center rib 1 and an adjacent row of blocks. See figures 1-3. *The decreasing height of the projections of the rib towards the slant groove 4 inherently promotes water flow as claimed.* Claim 1 fails to require the circumferential groove to have a substantially flat bottom.

As to "said opening position of said slant groove is located on a side of the circumferential groove opposite to said pseudo-land portion formed on another side of said circumferential groove" (claim 1) and "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (claim 31), note that the projections are on each side of the center rib 1 – this side being opposite the side at which the slant grooves open.

Applicant argues that Japan '024 does not disclose any circumferential groove extending along a circumferential direction of the tire". Applicant is incorrect since Japan '024 teaches a circumferential groove formed between the center rib and the adjacent row of blocks. The cross section of this circumferential groove can be seen in figures 2 and 3.

Japan '605

6) **Claims 1, 4-5, 7-8, 10, 12, 14, 18-19, 24-25, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '605 (JP 3-86605).**

The claimed tire is anticipated by the tire of Japan '605. The claimed pseudo land portion reads on the projected fin 4 of Japan '605. *The projected fin 4 is used to improve water drainage ability.* Claim 1 fails to exclude a pseudo land portion having a bottom surface which is spaced from the bottom of the circumferential groove.

Applicant's argument that fins 4 are provided opposite to each other rather than being formed opposite to the opening position of a slant groove is not persuasive because (a) the inclination of the lateral grooves causes the axially inner fins of a circumferential groove to be opposite a transverse groove and/or (b) claim 1 requires a specified side of the circumferential groove instead of each individual "pseudo-land portion" be opposite the slant groove. As to applicant's assertion that fins 4 are not provided to promote a smooth inflow of water flowing from the circumferential groove into the opening of a slant groove, applicant has not presented any convincing argument and/or evidence that flow of water from the circumferential groove into the transverse grooves of Japan '605 is impossible; it being noted that flow of water from a circumferential groove into a transverse groove of a directional tread is inherent). With respect to smooth, this is a relative term which fails to require tread structure different from that shown by Japan '605.

Europe '310

7) **Claims 1-6, 8, 14, 16-22, 24-26, 28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Europe '310 (EP 867310).**

The claimed tire is anticipated by Europe '310. The claimed pseudo land portion reads on one of the acute angle corner portion (72, 81, 91) of the block which is beveled over a distance of 10-30 mm from a tapered end thereof in a longitudinal direction so as to gradually shallow from the tapered end toward a width widened portion. Europe '310 teaches that the beveling obtains *smooth conduction of branching and joining of water flow*. The beveled portion is located in a circumferential groove as indicated by figure 1. Claim 1 reads on and fails to exclude a pseudo land portion in the form of a beveled (chamfered) acute angle portion of a block.

As to "said opening position of said slant groove is located on a side of the circumferential groove opposite to said pseudo-land portion formed on another side of said circumferential groove" (claim 1) and "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (claim 31), note beveled corner 72 or beveled corners 81, 91.

Applicant argues that the beveled corner portions form the walls of the grooves themselves and cannot also be in the grooves. This argument does not appear to make any sense because applicant's illustrated pseudo-land portion forms the walls of the grooves themselves. See for example figure 2a. As to applicant's argument that the beveled corners are shaped areas of the land portion (blocks), examiner notes that applicant's illustrated pseudo-land portions are shaped areas of a land portion (the rib).

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Moreover, the beveled corners are in grooves because the upper surface of the beveled corner is *below* the ground contacting surface of the land portions.

As to claims 2-6, note beveled corners 72, 81 or 91.

As to claims 8, 14, 16-19, note the beveled corner 72.

As to claims 20-22, note the center rib.

As to claims 24-26 and 28, note corners 81, 91.

As to claims 29-30, note the directional tread pattern.

8) Claims 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '310 (EP 867310) in view of Japan '025 (JP 5-319025).

As to claims 9-12, it would have been obvious to use a curved or flat form as claimed for the beveled portion (chamfer) since Japan '025, which like Europe '310 discloses a directional tread having chamfered acute angle corners of blocks teaches using different shapes for the chamfer such as a curved shape as shown in figure 2 or a flat shape as shown in figure 3. As to claims 13 and 15, it would have been obvious to provide the beveled portion (chamfered portion) of Europe '310 with the claimed triangular shape since Japan '025 clearly shows chamfering such that the chamfer defines a triangular portion (note shaped regions in figure 1).

Fukata et al

9) Claims 1, 4-5, 7, 20-22, 24-25, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukata et al (WO 95/18022).

The claimed tire is anticipated by the vehicle (pneumatic) tire of Fukata et al. The pseudo land portion to promote water flow into a slant groove reads on the

protuberances (transverse ribs) in the circumferential groove of the tire tread of Fukata et al. The slant grooves read on the lateral grooves of the tire tread of Fukata et al. The protuberances are expressly described as having a waved bottom *to prevent water from being held in the circumferential groove*. Claim 1 fails to exclude a pseudo land portion which is connected to both walls of the circumferential groove.

As to "said opening position of said slant groove is located on a side of the circumferential groove opposite to said pseudo-land portion formed on another side of said circumferential groove" (claim 1) and "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (claim 31), the above noted language in claims 1 and 31 fail to exclude a pseudo-land portion which is connected to both walls of the circumferential groove.

As to applicant's argument that the wave form surface 11a is only disclosed on the bottom surface of the groove, claims 1 and 31 fail to exclude the pseudo land portion being on the bottom surface of the groove. In other words, claims 1 and 31 fail to require the pseudo land portion to be spaced above the bottom surface of the groove for example like fins 4 of Japan '605 applied above.

As to claims 4 and 5 (fixed to a wall), note that the protuberances are fixed to both walls. See figures 1 and 2.

As to claim 7, note the height of the protuberances shown in figure 2a.

As to claims 24 and 25, note that blocks defined by the circumferential and lateral grooves have corners and that the protuberances are formed throughout the length of the circumferential groove and extend from one sidewall to the other side wall.

As to claims 20-22 and 29-30, note the directional tread pattern shown in figure 9, which includes a center rib.

10) Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukata et al (WO 95/18022) in view of Miyazaki (US 6138728).

As to claims 26-28, it would have been obvious to chamfer the corners of the blocks of Fukata et al since Miyazaki suggests chamfering corners of blocks with for example a curved chamfer to improve resistance to uneven wear and to improve wet performance.

Ikeda

11) Claims 1, 4, 6, 7, 20-22, 24, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda (US 6112788).

The claimed tire is anticipated by the pneumatic tire of Ikeda. The tire comprises a tread having longitudinal grooves (circumferential grooves) and axial grooves (slant grooves). The claimed pseudo land portion reads on the ribs of Ikeda which have a round upper surface as shown for example in figures 2 and 3. With respect to promoting water flow, *the outer ribs in the circumferential groove of Ikeda et al inherently "promote a smooth inflow of water flowing in the circumferential groove into the slant groove" since it has a round outer surface as shown in figures 2 and 3.* Claim 1 reads on and fails to exclude a pseudo land portion in form of a circumferential rib at the bottom of a circumferential groove wherein the circumferential rib has a round upper surface.

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As to "said opening position of said slant groove is located on a side of the circumferential groove opposite to said pseudo-land portion formed on another side of said circumferential groove" (claim 1) and "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (claim 31), note the axially innermost rib 10 in a circumferential groove.

As to applicant's argument that small ribs 10 are only disclosed on the bottom surface of the groove, claims 1 and 31 fail to exclude the pseudo land portion being on the bottom surface of the groove. In other words, claims 1 and 31 fail to require the pseudo land portion to be spaced above the bottom surface of the groove for example like fins 4 of Japan '605 applied above.

As to claims 4 and 6 (separate from first wall), note that the ribs are spaced from the walls of the circumferential groove. See figures 2 and 3.

As to claim 7, note Ikeda's teaching that the ribs have a height of .5-1.0 mm and that the longitudinal grooves have a depth of 6-15 mm.

As to claims 24, note that blocks defined by the circumferential and lateral grooves have corners and that the protuberances are formed along the entire length of the circumferential groove.

As to claims 20-22 and 29-30, note the directional tread pattern shown in figure 1, which includes a center rib.

12) Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda (US 6112788) in view of Miyazaki (US 6138728).

As to claims 26-28, it would have been obvious to chamfer the corners of the blocks of Ikeda since Miyazaki suggests chamfering corners or blocks with for example a curved chamfer to improve resistance to uneven wear and to improve wet performance.

Brown et al

13) Claims 1, 8-9, 13, 15-16, 18-19, 24-25 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al (US 5658404).

Brown et al discloses a pneumatic tire having traction elements 52 separated by circumferential grooves and lateral grooves. The circumferential grooves have straight upper edges and zigzag lower edges. These edges are defined by "protrusions" wherein each protrusion has a "triangular face", a base of the triangular face defining a section of the straight upper edge of the circumferential groove. See figure 8. The triangular faces are inclined with respect to the radial direction so as to define a window for the circumferential groove. Since the triangular face is inclined with respect to the radial direction, the height of the protrusion decreases from the straight upper edge to the bottom of the groove. Brown et al teaches that the circumferential grooves are designed to *improve the hydroplaning resistance and wet traction capability* of the tire. See col. 6 lines 61-62. Brown et al additionally teaches that the lateral grooves are located to *facilitate water flow*. In particular, Brown et al teaches that the lateral grooves intersect with the circumferential grooves so that *additional water channeling can be achieved*.

The claimed tire is anticipated by Brown et al. The "pseudo land portions" read on protrusions having the triangular faces best seen in figures 4, 5 and 8.

As to "said opening position of said slant groove is located on a side of the circumferential groove opposite to said pseudo-land portion formed on another side of said circumferential groove" (claim 1) and "the pseudo-land portion is arranged adjacent to a first groove wall of the circumferential groove not opened to the slant groove" (claim 31), note the axially inner triangular faces.

Applicant argues that Brown et al does not disclose slant grooves. Applicant is incorrect. Lateral grooves 28 are slant grooves ("slant grooves" as claimed read on lateral grooves 28).

14) Claims 20, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (US 5658404) in view of Europe '905 (EP 325905).

As to claims 20, 21 and 23, Brown et al does not illustrate a rib. However, Brown et al teaches that (1) the traction elements can be ribs instead of only blocks and (2) the traction elements can be a combination of ribs and blocks instead of only blocks. See co. 5 lines 19-36. As to claims 20, 21 and 23, it would have been an obvious alternative to use a pair of central ribs and two rows of shoulder blocks instead of two rows of central blocks and two rows of shoulder blocks since (1) Brown expressly suggests using a combination of ribs and blocks as an alternative to only four rows of blocks and (2) a tire tread comprising a combination of ribs and blocks in the form of pair of central ribs and two rows of shoulder blocks is well known / conventional in the tread art as exemplified by Europe '905. With respect to the angle of 120-150 degrees, note Brown

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et al's teaching to incline the triangular face at an obtuse angle with respect to the ground contacting surface of the tread.

Remarks

15) Applicant's arguments filed 1-8-03 have been fully considered but they are not persuasive.

Applicant's arguments filed 1-8-03 are addressed above.

16) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 872-9311 for After Final communications.

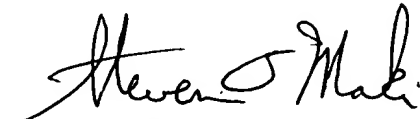
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
March 23, 2003


STEVEN D. MAKI 3-23-03
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733